

Notice of Allowability

Application No.

10/822,735

Examiner

Alexander J Kosowski

Applicant(s)

MOS ET AL.

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 4/30/04.
2. ☒ The allowed claim(s) is/are 2-23.
3. ☒ The drawings filed on 4/13/04 and 4/30/04 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 4/13/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

- 1) Claims 2-23 are presented for examination.

CONTINUITY

- 2) In the preliminary amendment filed 4/30/04, Applicant has added several new paragraphs to the specification. Due to this, Examiner is considering this application a Continuation in Part, and not a straight Continuation as filed. Therefore, only claimed subject matter found in the original specification is given the priority date of the parent application.

Allowable Subject Matter

- 3) Claims 2-23 are allowed.
- 4) The following is an examiner's statement of reasons for allowance:

The closest pieces of prior art are Uzawa (U.S. Pat 6,333,786), Shiraishi (U.S. Pat 6,483,571), and Nishi (U.S. Pat 5,657,129).

Uzawa teaches the use of an exposure apparatus as well as measuring and correcting positions of alignment marks.

Shiraishi teaches substrate and reticle stages in an illumination system which utilizes alignment marks.

Nishi teaches controlling a measuring tool to measure the position of at least one alignment mark on said substrate overlaid with a layer and calculating a corrected position of the alignment mark on the basis of the measured position of the alignment mark and a model of a process apparatus involved in deposition of the layer.

However, Referring to claims 2 and 13, the references above, alone or in combination with the prior art of record, do not explicitly teach an alignment system for a

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lithographic projection apparatus comprising a calculating unit adapted to calculate a corrected position of an alignment mark on the basis of the position of said alignment mark being measured and a model of a process apparatus involved in a deposition of the layer of deposited material, said model taking into account an amount of deposition of said layer of deposited material, in combination with the remaining features or elements of the claimed invention.

Referring to claims 3-12 and 14-23, the claims are dependent on allowed independent claims, and are therefore allowable.

5) Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6) Although not used in any office action, Examiner wishes to add several other pieces of related prior art to the record. These have been noted on the attached PTO-892.

7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander J Kosowski whose telephone number is 571-272-3744. The examiner can normally be reached on Monday through Friday, alternating Fridays.

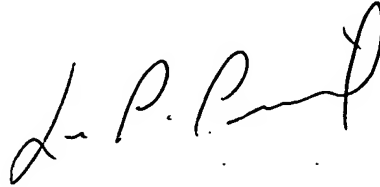
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the

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organization where this application or proceeding is assigned is (703) 872-9306. In addition, the examiner's RightFAX number is 571-273-3744.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Alexander J. Kosowski
Patent Examiner
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A handwritten signature in black ink, appearing to read "L. P. Picard", written in a cursive style.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100